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Analysis of Land Use Developments Along the LRT Line (Case Study: Polresta, Jakabaring and DJKA Station's)

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ABSTRACT

Transportation has become a basic need that plays an important role in people's lives. To reach a place, a high level of accessibility is required. A high level of accessibility will affect the number of people coming to an area. Many people will affect the number of activities that require land. Therefore, this study aims to analyze land use trends that occurred in the time period before and after the South Sumatra LRT. LRT or Light Rail Transit is a type of public transportation in the form of light rail operating in urban areas. LRT is the first light rail transportation in Indonesia right in Palembang City. Therefore, it is interesting to see its relation to land change along the LRT route. This research was conducted at three stations which were case studies, namely Polresta, Jakabaring and DJKA stations. This station was chosen because it is in Jakabaring. Jakabaring was chosen as the research area because it is a sub-district which is located on the border with other regencies but is still passed by the LRT. This research is aqualitative research using the overlay before-after analysis method through spatial data. This research uses the help of Archgis software, through Intersect tools and multiple ring buffers. The results of the analysis are then used as data for further analysis using a pivot table in excel. The results of this analysis prove that there is a tendency for changes in land use within a certain radius. The trend is in the form of changes in land from swamps or paddy fields to deserted, trade and services as well as offices.

Key word: land use; transportation; South Sumatera LRT; before-after analysis; arcgis.

INTRODUCTION

Transportation is an important element in supporting community activities. While public transportation is public transportation with a rental or payment system (Putri, Yulanda, & Desga, 2016). Transportation comes from the Latin word, namely transportare. Transportare consists of two cities, namely trans and portate. Trans which means across or across while portare means to carry or carry (Kadir Abdul, 2006). Transportation has four main elements consisting of street, vicicle, motive power and station (Biomantara & Herdiansyah, 2019). According to Shofian Edy Harianto Bongso, Theo K.Sendow (2019), Transportation is a Derived Demind due to economic, social and cultural sector activities. Population growth and development of the above sectors will affect the level of use of public transportation. Space, time and infrastructure play an important role in connecting cities (Bettencourt, 2017). The transportation system will hold the most important element in fulfilling the development of the region (Hadihardja, 1997). Transport is a major mediator of sustainability in urban areas, as they influence the way people and goods move within cities (Tamin, 2007). The more people there are, the higher the chances of using private transportation. The large use of private transportation on the streets will cause a new problem, namely congestion. In line with that, Aminah (2012), revealed that public transportation problems will increase in direct proportion to increasing social and economic activities and travel requests. One solution that can be done is to increase the provision of public transportation. There are various types of public transportation, one of which is Light Rail Transit or better known as LRT. According to Law Number 23 of 2007 concerning Railways, it is stated that LRT is a low-speed mass transportation of 60-120 km/hour. In general, the LRT itself operates in urban areas. Its shorter tracks and more flexible paths make LRT suitable for use in urban areas. Referring to the title raised, the location of this research is in the city of Palembang, precisely in the District of Jakabaring. The South Sumatra LRT line itself was built across roads which are the main axis of Palembang City which is already congested so to see the usefulness of the South Sumatra LRT for

land use would be difficult to do because it is located on the axis of a main road which has already been developed. However, to analyze the further impact of the South Sumatra LRT, the district administrative areas that border it are included. For this reason, the most distant district was finally chosen and it is still possible for land use development to occur due to the LRT transportation in this study. In Palembang itself, the LRT has been operating since 2018. The South Sumatra LRT is the first LRT built in Indonesia. Precisely in general can use it after the Asian Games event is held. Initially the aim of building the LRT was to help the mobility of athletes to avoid traffic jams considering that the distance between the airport and the Jakabaring area where the Asian Games was held was quite far. However, the real long-term goal expected by the government is to help facilitate the movement of Palembang people from Ulu to Ilir or vice versa so as to reduce road burden.

The more developed the area, the more diverse the activities in the region. The transportation system will hold the most important element in fulfilling the development of the region (Hadihardja, 1997). This will also be directly proportional to the increase in population. These activities will require land. Improving the transportation network as an effort to increase accessibility has proven to be able to help develop an area (Pramana, 2018). Good accessibility from various modes of transportation, especially trains, will affect property values (Debrezion, Pels, & Rietveld, 2007). That is why there is an increase in land use. According to Dewo Kusumaningrat, Subiyanto, & Yuwono (2017), . Land use comes from a mixture of human activities to meet the needs of life. According to Aminah (2012), the basic elements of infrastructure in urban development are the transportation system, transportation and land use will play a crucial role in government policies and programs. Land use is a combination of human activities on the biophysical environment over a wide range of time and spatial scales (Setiawan & Yoshino, 2020). Therefore, the aim of this study was to analyze land use trends that occurred before and after the existence of the South Sumatra LRT in the case studies of Polresta, Jakabaring and DJKA stations

RESEARCH METHODS

Materials

This research is aqualitative research. Qualitative research is a research approach to observe people's lives, history, behavior, organizational functionalization, etc.(Rahmat, 2009). The purpose of qualitative research is to describe in detail the phenomenon in a context of what is happening in the field of study (Fadli, 2021). The research started with field observations related to the development of the South Sumatra LRT. To support research, it is necessary to collect data on stakeholders related to spatial data in the form of land use in 2015-2020. After an analysis is carried out, it can be seen whether there has been a change or not along the LRT route. The research also departs from the theory of Marcus Tukan, Hozairi (2023), in his journal writing, one indicator of the success of inter-regional development is determined by the support of a reliable and highly capable transportation system. To analyze these developments, a before-after analysis was carried out to determine trends in land change. The input data needed is spatial land use data before and after the LRT. Then, an analysis was carried out using the Multiple Ring Buffer to analyze the tendency of land use at the specified radius. The results of this analysis are then detailed in a pivot table analysis to see trends in land use and changes in land use before and after the LRT.

This research is different from previous research because no one has raised the object of LRT transportation to the surrounding land use as research. Research on LRT is also still rare in Indonesia because only the city of Palembang has an LRT and has been operating, this is considered an opportunity in this research. In addition, the spatial analysis method using the Multiple Ring Buffer tool is also different from previous analyzes which generally only reached the data overlay stage.

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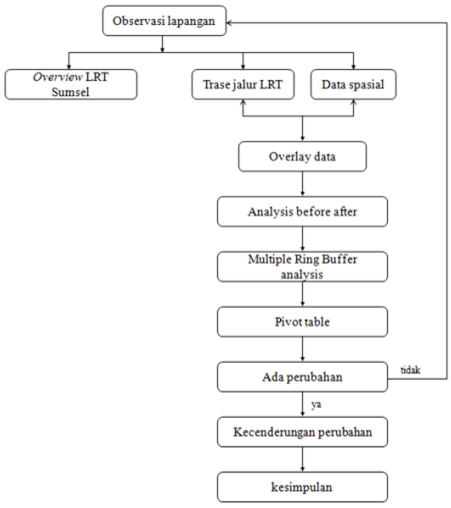


Figure 1. Flow chart

Methods

This research was conducted in Jakabaring District, Palembang City. The location was chosen because it saw the dynamics of passengers which tended to be higher in Jakabaring District. The LRT line is divided into 5 zones, the zones taken in this study are zone 4 at Polretsa station and Zone 5 at Jakabaring and DJKA stations. The length of the LRT line route in each zone is 3 - 6 km. The research started from field observations to see the development of land use in the field. Analysis was carried out using Archgis software with the help of Multiple Ring Buffer tools

Figure 2. Trase Jalur LRT Sumsel

Data Analysis

The analysis was carried out using a descriptive method on the results of the before-after analysis based on the trend of land use along the LRT route. The data inputted in the analysis process are land use data in 2015-2020 and South Sumatra LRT line alignment data. According to the overview description of the South Sumatra Light Railroad Management Center, the planning and feasibility study (FS) of the South Sumatra LRT was carried out in 2015 then construction in 2016. On this basis, land cover was taken in 2015 and 2020. This data will be processed systematically. along with the help of Archgis and Excel software for. In addition, the analysis is also supported by related literature studies.

RESULT AND DISCUSSION

To find out changes in land use that have occurred, the first step is to overlay land use data in 2015 and 2020. With a before - after analysis, we can find out the land use of a location in 2015 and then the land use in 2020 whether it is still the same or has changed. In general, it can be seen that there has been a land change. However, this needs to be further analyzed, what land changes are dominant along the LRT route.

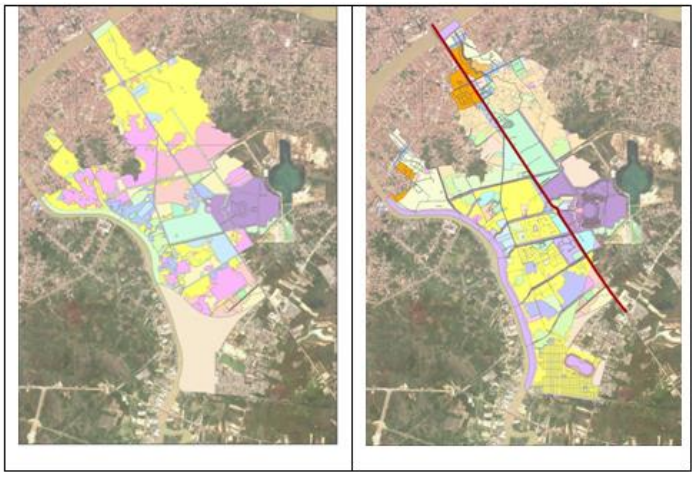
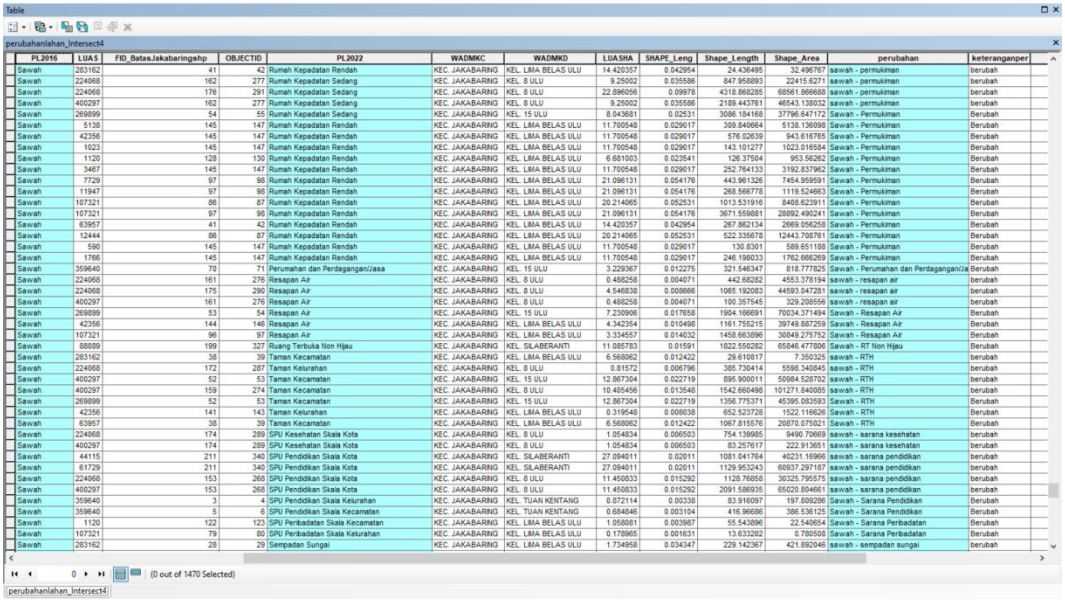


Figure 3. Overlay data spasial 2015-2020

To find out more clearly, it is done with the help of intersect. After entering the second layer of land change, you will see a comparison. For simplicity, a categorization of land uses that experience changes or not is carried out. So, the attribute table will look like the image below.



Table

perubahanlahan_Intersect4

PL2016	LUAS	FID_BatasJakabaringshp	OBJECTID	PL2022	WADMKC	WADMKD	LUASHA	SHAPE_Leng	Shape_Length	Shape_Area	perubahan	keteranganper
Sawah	283162	41	42	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	14.420357	0.042954	24.436495	32.496787	sawah - permukiman	berubah
Sawah	224068	162	277	Rumah Kepadatan Sedang	KEC. JAKABARING	KEL. 8 ULU	9.25002	0.035586	847.958893	22415.6271	sawah - permukiman	berubah
Sawah	224068	176	291	Rumah Kepadatan Sedang	KEC. JAKABARING	KEL. 8 ULU	22.896058	0.09978	4318.868285	68561.866668	sawah - permukiman	berubah
Sawah	400297	162	277	Rumah Kepadatan Sedang	KEC. JAKABARING	KEL. 8 ULU	9.25002	0.035586	2189.443761	46543.138032	sawah - permukiman	berubah
Sawah	269899	54	55	Rumah Kepadatan Sedang	KEC. JAKABARING	KEL. 15 ULU	8.043681	0.02531	3086.184168	37796.647172	Sawah - Permukiman	Berubah
Sawah	5138	145	147	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	11.700548	0.029017	309.846664	5138.136098	Sawah - Permukiman	Berubah
Sawah	42356	145	147	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	11.700548	0.029017	576.02639	943.616785	Sawah - Permukiman	Berubah
Sawah	1023	145	147	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	11.700548	0.029017	143.101277	1023.016584	Sawah - Permukiman	Berubah
Sawah	1120	128	130	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	6.681003	0.023541	126.37504	953.58262	Sawah - Permukiman	Berubah
Sawah	3467	145	147	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	11.700548	0.029017	252.764133	3192.837962	Sawah - Permukiman	Berubah
Sawah	7729	97	98	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	21.096131	0.054176	443.961326	7454.959591	Sawah - Permukiman	Berubah
Sawah	11947	97	98	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	21.096131	0.054176	268.566778	1119.524663	Sawah - Permukiman	Berubah
Sawah	107321	86	87	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	20.214065	0.052531	1013.531916	8408.623911	Sawah - Permukiman	Berubah
Sawah	107321	97	98	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	21.096131	0.054176	3671.559881	28892.490241	Sawah - Permukiman	Berubah
Sawah	63957	41	42	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	14.420357	0.042954	267.862134	2669.056258	Sawah - Permukiman	Berubah
Sawah	12444	86	87	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	20.214065	0.052531	522.335678	12443.708761	Sawah - Permukiman	Berubah
Sawah	590	145	147	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	11.700548	0.029017	130.8301	589.651188	Sawah - Permukiman	Berubah
Sawah	1766	145	147	Rumah Kepadatan Rendah	KEC. JAKABARING	KEL. LIMA BELAS ULU	11.700548	0.029017	246.198033	1762.666269	Sawah - Permukiman	Berubah
Sawah	359640	70	71	Perumahan dan Perdagangan/Jasa	KEC. JAKABARING	KEL. 15 ULU	3.229367	0.012275	321.546347	818.777825	Sawah - Perumahan dan Perdagangan/Ja	Berubah
Sawah	224068	161	276	Resapan Air	KEC. JAKABARING	KEL. 8 ULU	0.488258	0.004071	442.68282	4553.378194	sawah - resapan air	berubah
Sawah	224068	175	290	Resapan Air	KEC. JAKABARING	KEL. 8 ULU	4.546838	0.008666	1065.192083	44593.047281	sawah - resapan air	berubah
Sawah	400297	161	276	Resapan Air	KEC. JAKABARING	KEL. 8 ULU	0.488258	0.004071	190.357545	329.208556	sawah - resapan air	berubah
Sawah	269899	53	54	Resapan Air	KEC. JAKABARING	KEL. 15 ULU	7.230906	0.017658	1904.186691	70034.371494	Sawah - Resapan Air	Berubah
Sawah	42356	144	146	Resapan Air	KEC. JAKABARING	KEL. LIMA BELAS ULU	4.342354	0.010498	1161.755215	39749.887259	Sawah - Resapan Air	Berubah
Sawah	107321	96	97	Resapan Air	KEC. JAKABARING	KEL. LIMA BELAS ULU	3.334557	0.014032	1458.663896	30849.275752	Sawah - Resapan Air	Berubah
Sawah	88089	199	327	Ruang Terbuka Non Hijau	KEC. JAKABARING	KEL. SILABERANTI	11.085783	0.01591	1822.550282	65846.477806	Sawah - RT Non Hijau	Berubah
Sawah	283162	38	39	Taman Kecamatan	KEC. JAKABARING	KEL. LIMA BELAS ULU	6.568062	0.012422	29.610817	7.350325	sawah - RTH	berubah
Sawah	224068	172	287	Taman Kelurahan	KEC. JAKABARING	KEL. 8 ULU	0.81572	0.006796	385.730414	5598.340845	sawah - RTH	berubah
Sawah	400297	52	53	Taman Kecamatan	KEC. JAKABARING	KEL. 15 ULU	12.867304	0.022719	895.900011	50984.528702	sawah - RTH	berubah
Sawah	400297	159	274	Taman Kecamatan	KEC. JAKABARING	KEL. 8 ULU	10.405456	0.013548	1542.660498	101271.840085	sawah - RTH	berubah
Sawah	269899	52	53	Taman Kecamatan	KEC. JAKABARING	KEL. 15 ULU	12.867304	0.022719	1356.775371	45395.083593	Sawah - RTH	Berubah
Sawah	42356	141	143	Taman Kelurahan	KEC. JAKABARING	KEL. LIMA BELAS ULU	0.319548	0.008038	652.523728	1522.116626	Sawah - RTH	Berubah
Sawah	63957	38	39	Taman Kecamatan	KEC. JAKABARING	KEL. LIMA BELAS ULU	6.568062	0.012422	1067.815576	20870.075021	Sawah - RTH	Berubah
Sawah	224068	174	289	SPU Kesehatan Skala Kota	KEC. JAKABARING	KEL. 8 ULU	1.054834	0.006503	754.139985	9490.70669	sawah - sarana kesehatan	berubah
Sawah	400297	174	289	SPU Kesehatan Skala Kota	KEC. JAKABARING	KEL. 8 ULU	1.054834	0.006503	83.257617	222.913651	sawah - sarana kesehatan	berubah
Sawah	44115	211	340	SPU Pendidikan Skala Kota	KEC. JAKABARING	KEL. SILABERANTI	27.094011	0.02011	1081.041764	40231.16966	sawah - sarana pendidikan	berubah
Sawah	61729	211	340	SPU Pendidikan Skala Kota	KEC. JAKABARING	KEL. SILABERANTI	27.094011	0.02011	1129.953243	60937.297187	sawah - sarana pendidikan	berubah
Sawah	224068	153	268	SPU Pendidikan Skala Kota	KEC. JAKABARING	KEL. 8 ULU	11.450833	0.015292	1128.76858	30325.795575	sawah - sarana pendidikan	berubah
Sawah	400297	153	268	SPU Pendidikan Skala Kota	KEC. JAKABARING	KEL. 8 ULU	11.450833	0.015292	2091.586935	65020.804661	sawah - sarana pendidikan	berubah
Sawah	359640	3	4	SPU Pendidikan Skala Kelurahan	KEC. JAKABARING	KEL. TUAN KENTANG	0.872114	0.00336	83.916097	197.809286	Sawah - Sarana Pendidikan	Berubah
Sawah	359640	5	6	SPU Pendidikan Skala Kecamatan	KEC. JAKABARING	KEL. TUAN KENTANG	0.684846	0.003104	416.96696	386.536125	Sawah - Sarana Pendidikan	Berubah
Sawah	1120	122	123	SPU Peribadatan Skala Kecamatan	KEC. JAKABARING	KEL. LIMA BELAS ULU	1.058081	0.003987	55.543896	22.540654	Sawah - Sarana Peribadatan	Berubah
Sawah	107321	79	80	SPU Peribadatan Skala Kelurahan	KEC. JAKABARING	KEL. LIMA BELAS ULU	0.178965	0.001631	13.633202	0.780508	Sawah - Sarana Peribadatan	Berubah
Sawah	283162	28	29	Sempadan Sungai	KEC. JAKABARING	KEL. LIMA BELAS ULU	1.734958	0.034347	229.142367	421.892046	sawah - sempadan sungai	berubah

0 (0 out of 1470 Selected)

perubahanlahan_Intersect4

Figure 4. Table Of Attribute Intersect Analysis

After categorizing, to make it easier to read the data, the data is separated in Excel for further analysis using a pivot table. The aim is to see the magnitude of the area of change that occurs in each land use. The results of the intersection analysis show that there is indeed a change in land use. The magnitude of the change is visible. The results of this analysis show that the most dominant change is the use of swamp land in 2015 to become settlements in 2020 with an area of ±29 Ha and the use of vacant land in 2015 to become settlements in 2020 with an area of ±31 Ha. This area is the largest area of land use change that has occurred because other data shows a land change of ±10 Ha.

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Jenis Penggunaan Lahan	Luasan Perubahan (Ha)												
2015 \ 2020	Surface water	Wastewater Treatment Plant (IPAL)	Drinking Water Treatment Plant (IPAM)	Electric Power Generation	Trade and Services	offices	Defense and security	Water infiltration	Non Green Open Space	settlement		
Settlement	2.05	0.0		0.3	16.1	27.9	0.2	0.4	2.5	38.2	102.1	4.7
swamp					0.9			5.2		29.5		
rice field	0.28	1.1			2.4	1.2		19.0	6.6	11.1	17.5	
Vacant land/Open space	1.06				0.7	5.1		0.5	2.0	31.3	2.9	
Grand Total	**64.88**	**1.4**	**5.9**	**0.3**	**12.1**	**26.0**	**85.4**	**2.4**	**41.1**	**22.1**	**171.6**	**143.7**	**4.7**

Jenis Penggunaan Lahan	Luas Perubahan (Ha)												
2015 \ 2020	Small and Medium Industry Center		sports facilities	education facility			Worship Facilities			Transportasion facilities	Green Open Space			Crops
Settlement	52.02	3.23		2.06	0.21	11.87	0.49	0.20	2.82		5.25	2.21		1.06
Rice field	28.41	0.97		0.04	0.02	19.65	0.00	0.00			21.85	0.71		29.22
Grand Total	**83.74**	**5.75**	**47.55**	**4.38**	**1.51**	**54.51**	**2.09**	**0.38**	**11.71**	**0.02**	**48.93**	**12.69**	**11.46**	**32.90**

Figure 5. Pivot Table Analysis

After that, it is necessary to analyze the linkages between the LRT lines and the land changes that have been analyzed. The analysis this time uses Multiple Ring Buffer. At this stage, the distance/radius of the buffer is determined. The radius distance guidelines that are often used are ¼ mile or 400 meters or multiples of 1 mile or 800 meters as network and service planning (Daniels & Mulley, 2013). However, to measure land change more broadly, this research uses a radius of 100 – 2500 meters to cover all areas of Jakabaring District. This analysis was carried out by inputting the LRT trace data and land changes that have been analyzed. To find out the linkages to South Sumatra LRT transportation, the analysis still uses Archgis assistance on the Multiple Ring Buffer tool. The analysis is used to determine land changes that occur along the South Sumatra LRT route. Therefore, the layer included is the shp layer of spatial data on the South Sumatra LRT route and spatial data on the Jakabaring sub-district.

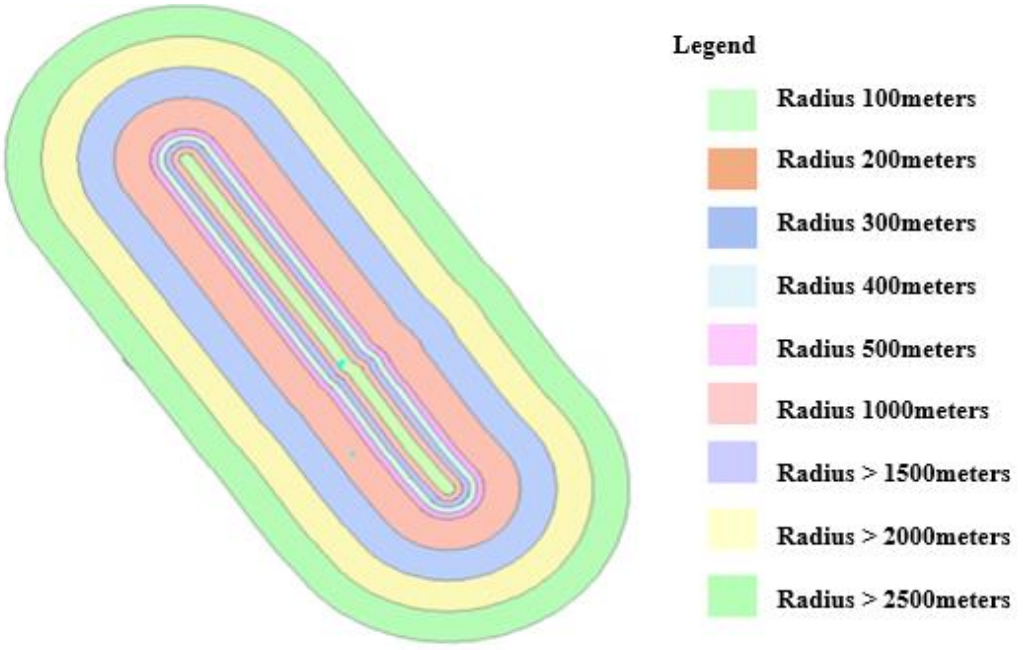

Figure 6. Multiple Ring Buffer Analysis

In the attribute table of the Multiple Ring Buffer analysis, the area of land use change is again set, then all data in the table of attributes is transferred to excel to be re-analyzed using a pivot table.

No	Land Use	Distance (m) Land Use Area (Ha)									
		100 m	200 m	300 m	400 m	500 m	>1000 m	>1500 m	>2000 m	>2500 m	TOTAL (ha)
1	gardens - trade and services	1.53	0.00				0.44	0.32			2.30
2	trade and services - offices	1.28	1.14	0.42							2.83
3	trade and services - settlements	0.90					0.10	0.09			1.09
4	Settlements - Trade and Services	5.39	1.42	1.31	1.77	0.93	2.23	0.42	2.43	0.20	16.10
5	settlements - offices	7.23	4.52	5.40	5.60	4.05	0.59				27.40
6	settlements - settlements	9.59	11.09	6.99	3.47	1.12			4.79	0.23	37.27
7	Settlements - Small and Medium Industry Centers	0.98	1.49	3.00	5.62	4.29	4.93	0.19	25.30	6.20	52.02
8	Swamp - Settlement	0.94	3.82	4.92	5.11	3.99	9.48	1.07			29.33
10	rice fields - settlements	0.49	3.24	3.85	3.90	3.03	4.22	9.80	0.12		28.67
11	rice fields - small and medium industry centers							1.48	22.18	4.75	28.41
12	vacant land - settlements	0.04	0.97	0.37	0.22	4.25	23.62	4.59	0.00		34.06
13	vacant land - sports facilities		0.42	2.91	4.15	3.70					11.18

Figure 7. Pivot table analysis

From the results of the analysis it is known that at a distance of 100 meters, the tendency of land change that occurs is settlements - become offices. At a distance of 200 meters, the highest trend of land change is also settlements – offices and swamps – settlements. At a distance of 300 meters there are still settlements - housing and trade/services and the swamps have become settlements. At a distance of 400 meters, settlements become offices, swamps become settlements and vacant land becomes sports facilities. At a distance of 500 meters, small and medium industrial centers. At a distance of >500 meters, the tendency of land use is for swamps to become settlements, paddy fields to become settlements and swamps and settlements to become the center of small and medium industries.

The results of the analysis show that there are significant changes in the dynamics of land use for settlements, trade and services as well as offices. This is in accordance with the results of field observations and supports the initial hypothesis of the research that there is indeed an increase in land use change after the LRT transportation. The large number of changes in land use, if examined further, could be due to increased accessibility to and from the LRT. This can also be seen from the most dominant types of land change, namely trade and services as well as settlements and offices. Each owner of these buildings certainly considers the ease of access to and from their building. The impact of the light rail service proves that the provision of transportation services is better than before the existence of light rail and has an impact on the land value of the vicinity of the rail service (Ransom, 2018). The movement of the flow of people, vehicles and goods will lead to various interactions because all interactions require travel (Tamin, 2000).

In line with this, in addition to the availability of land at affordable prices, non-physical factors that can affect changes in land use are the availability of public facilities, because more complete facilities will influence residents to settle in the area to support their activities (Resiwiyasa, Novie Fitria., I Gede Sugiyanto., 2012). Babcock's Axis Theory (1960) in (Intan M. Harjanti*, Khristiana. D. Astuti, Pangi, R. Yesiana, P. Anggraini & Septiarani, 2020), the existence of a transportation axis will have strength in physical development due to the association of the transportation axis with population mobility tall one. This is supported by the theory of Charles Colby (1933) in (Silondae, 2016), in the city there are dynamic forces that influence urban land use patterns created by the movement of residents both from the inside of a city to the outside and vice versa. Accessibility impacts land use and transportation changes by providing opportunities for each individual to participate in activities in geographic locations (Geurs & van Wee, 2004). Based on the quotation above, it is known that there is a close relationship between transportation and land use due to increased accessibility.

CONCLUSION

Based on the results of the analysis and discussion that has been carried out, it can be seen that public transportation, in this case the South Sumatra LRT, has had an impact on the development of a region. By using before-after analysis and buffering techniques for land use along the LRT line and around the case study station in this study, it was possible to determine land use before and after the South Sumatra LRT. The South Sumatra LRT is a potential generation that can become a generation for the development of the Jakabaring region. The remote location of

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Jakabaring makes this area very visible in its development. Based on the results of the analysis, it is known that there is a tendency for changes in land use along the LRT line at a certain radius. Within a radius of 100-500 meters, there is a tendency for changes in Adela's land for housing and trade/services and offices, both previously built and undeveloped land such as swamps and vacant land. Indeed, the use of land that is directly adjacent to the LRT line is in the form of a change in the function of existing land, for example from a residential area to an office building, because there is not too much vacant land on the side of the road. However, this is another indication that LRT has a further impact, namely social and economic impacts. As described above, the development of the transportation network has an impact on property and land values. The many changes in land use, if examined further, could be due to increased accessibility. With the easy reach of the Jakabaring Area, it has further increased the movement of people to this area. Increased accessibility will have a significant impact on land use in the Jakabaring area. With increased accessibility, it will certainly add to the variety of community activities. These activities certainly require land, the more important the activities are for the community, the placement tends to utilize and approach generation. That is why there are still changes in land use functions along the South Sumatra LRT line. LRT can be utilized as a potential for social and economic development. So overall in this study, since the existence of the LRT, it has proven that the Jakabaring area, starting from the Polresta station to the DJKA station, has experienced developments that have affected its land use.

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